NOTE XVI.

NEW AND INTERESTING MAMMALS OF THE DUTCH NEW-GUINEA-EXPEDITION TO THE SNOW-MOUNTAINS

BY

Dr. F. A. JENTINK.

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Phalanger gymnotis Peters et Doria.

N° 277. Old ♂. Regen-eiland, September 30, 1909 (skin with skeleton).
N° 439. Very old ♀. Alkmaar, January 29, 1910 (skin with skeleton).
N° 435. Young ♀. Alkmaar, January 20, 1910 (skin with skeleton).

The type-specimen (an adult male with skeleton), collected by Beccari on one of the islands of the Arou-Archipelago and described by Peters and Doria in 1875 (Ann. Mus. Civ. Gen. VII) and at the same time the only known individual, has been a puzzle to all students of the *Phalanger*-group. It therefore is of the highest interest that I found in the Lorentz-collection the three above mentioned specimens, prima facie distinct from all hitherto seen individuals of the *orientalis*-group, but at the same time exactly agreeing with *gymnotis* Peters et Doria. During the past summer I could study the type in the Genoa Museum, by the kindness of the Director Marquis G. Doria, so that I am absolutely sure of the identification. It hardly can be supposed that specimens of this species once have been brought over from New-Guinea to the Arou-islands, so

that the living of this species both in New-Guinea and on the Arou-islands, is another proof for their land-connection in times past. However, notwithstanding there seems to be no doubt about the original locality — the Arou-islands — it is a very remarkable fact, that nobody since 1875 saw another specimen from the named islands, the more strange as before Beccari our traveller Baron von Rosenberg collected specimens, now in the Leyden Museum, of *Phalanger maculatus* as well as of *Phalanger orientalis* on these islands, and Wallace too procured from there specimens, now in the British Museum, belonging to these two species.

This may be as it is, it remains however a fact that Peters described the species in such clear terms, that merely lack of material may be an excuse why later authors failed to accept it as a species distinct from *Phalanger orientalis*. Indeed, extremely striking is the kind of fur and its colour as well as the naked tail, only adorned with a rather small ring of fur round its base; moreover the skull, concave like in *orientalis*, presents a dentition quite distinct from that of the latter species, especially by the very stout posterior premolar (p^4) in the upper- as well as in the lower jaw, placed by far not so correctly in the molar-row as is the case in all other *Phalanger*-species.

Phascogale Lorentzii, n. sp.

N° 329. Young adult ♀. Hellwig Mts. (2600 M.), October 24, 1909 (skin and skeleton). With four youngs in pouch.

This animal is characterized by its large size, long fur, shining black colour, white ears, white extremity of tail and very elongated claws.

The fur is very long, longer than in any other *Phascogale* known to me, very dense — not adpressed like in other *Phascogale*-species — and very soft to the touch. Head with thickly set black hairs, like the anterior part of the back, broadly between the shoulders, and like the posterior

part of the back together with the tail for three fourth of its length; the midmost part of the back black also, but some hairs have a whitish subterminal ring, giving this part a fine grizzled appearance; the latter colour dominates also on the shoulders and haunches; underparts of a dirty yellow, suffused with some brownish red; feet black, hands sooty; ears exteriorly white haired, inside black haired, margin of ear white; distal part of tail for one fourth pure white haired. Claws stronger and larger than in other *Phascogale*-species known to me.

	mm.
head and body	220
tail	200
hindfoot with claw. . . .	38
skull: basal length. . . .	44
greatest breadth . .	24
palatal length . . .	26
length of molars 1—3	7

Phascogale Nouhuysii, n. sp.

N° 321. Young adult ♀. Bivak-island (± 1050 M.), October 12, 1909 (skin and skeleton).

Another specimen apparently belonging to an undescribed form of *Phascogale*. The animal is smaller than *Lorentzii*, has the hairs very soft, short and adpressed like in *melas* and other species. Upperparts black, contrasting with the lovely coloured underparts; however there are among the black back-hairs several ones showing a tendency to a more brightly colouring, as these hairs are ringed with reddish brown, like all the hairs of the upperparts of head, sides of body, upperparts of extremities and anal underparts of tail. Underparts of a beautiful golden red, each hair being basally mouse-coloured. Ears inside as well as outside black haired, like hands and feet and tail, the tip of the latter however is pure white for about half an inch. Claws longer and stronger than in other *Phascogale*-species, although much shorter than in *Lorentzii*.

	mm.
head and body	195
tail	170
hindfoot with claw	33
skull: basal length	42.5
greatest breadth. . .	24.5
palatal length . . .	25.5
length of molars 1—3	8

Notwithstanding *Lorentzii* is a larger animal than *Nouhuysii*, with a larger skull, in the latter however the skull is broader, the molars stouter built, and the upper- as well as the lower canines are much stronger and a good deal larger; but in *Lorentzii* the auditory bullae are more inflated, meanwhile the skull, as a whole, makes the impression of being much more slender. A careful comparison learns that there are a lot of other differences, very difficult to describe, between these two skulls.

Phascogale naso, n. sp.

N° 326. Old ♂. Hellwig Mts. (± 2000 M.), October 16, 1909 (skin and skeleton).

	mm.
head and body	145
tail	145
ear	16
hind foot	27
skull: basal length	32
greatest breadth. . .	19.5
palatal length . . .	19
length of molars 1—3	5.5

By far the smallest of all hitherto known New-Guinea-species, except *melanura* Thomas; all the teeth are present and more or less worn.

The silky hairs of the back from between the ears, as well as those along the flanks, are of a fine brownish color, mouse-colored at the base, and intermixed with some whitish hairs; hairs of underparts at the base mouse-colored,

with dirty white tips; upperparts of head of a sooty black; hairs generally much shorter than in *Lorentzii*, although not at all adpressed like in *Nouhuysii*. Tail with adpressed rather short brownish hairs, its basal part however adorned with a sharply defined ring of much longer hairs for about ten millimeters. Hairs of hands and feet of a sooty color, extending over the small curved claws. The anterior pair of upper incisors is separated from the other incisors by a very conspicuous interval; they are rather sloping; the second and third upper premolars are of the same size and shape, meanwhile in *Lorentzii* and *Nouhuysii* the third upper premolar is a good deal smaller than the second one; in the lower jaw likewise the second and third premolars are of the same size and shape, meanwhile in *Lorentzii* and *Nouhuysii* the third lower premolar is very small, the second being more than twice longer and broader. Nasalia broadly crested and slightly curved, so that a kind of small ram's nose is imitated, giving to the head of the animal a peculiar aspect, quite different from that of the other *Phascogale*-species; therefore I propose the specific title »*naso*".

Anisomys imitator O. Thomas.

This large rat has very peculiar lower incisors; they are so different from the incisors of all other rats, that this character alone is sufficient to recognize the species among thousends others; these lower incisors combined are of only the same breadth in front as a single upper one, while in depth the lower teeth exceed the upper ones by a third. The type-specimens are a male and a female, collected by Meek in British New-Guinea, Avera, Aroa-river; other specimens have never been found. Now it is very interesting that I detected among a rather large lot of lower jaws belonging to different Mice and Marsupials procured January 23, 1910, by the Lorentz-expedition from the indigenous Pesegem-tribe (1500 M.), on the Oroh, a branch of the Lorentz-river, a right and a left jaw, together

forming a complete lower jaw of this remarkable species. Therefore we may be sure that this beautiful large rat too lives in the region explored by the members of our expedition. This large collection of lower jaws ought to have a signification, and if it may be allowed to make a hypothesis, then I suggest that the papoeas use these lower jaws, especially the incisors, as implements, perhaps like the Siriono-Indians do, as described in Petermann's Mitteilungen, 1911, p. 16: »die Siriono-Indianer in Ost-Bolivien haben »überall eigentümlich geschäftete Nagetierzähne, die sie als »Messer anwenden", and illustrated by Abbildung 3 on Tafel 6. On one of the labels from the Pesegem-tribe indeed has been remarked: »different lower jaws used for fashioning arrows, collected in the kampong."

Mallomys Rothschildii O. Thomas.

Although there are in the collection made by the Lorentz-expedition neither skins nor skulls belonging to *Mallomys Rothschildii*, we may be convinced that this animal is living in rather large quantities in the country round Alkmaar and Pesegem, as I found in the lower-jaw-collection (see *Anisomys imitator*) 13 right and left halves of lower jaws, belonging at least to 7 individuals! The size of the jaws, combined with the typical structure of the molars, leaves no doubt as to the correctness of the identification. They have been procured in January 1910.

The type-specimen of this large rat is an adult male in the Tring Museum; its skull is in the British Museum; it has been captured between Mount Musgrave and Scratchly, British New-Guinea. In the Leyden Museum there are three specimens, collected at the Rawlinson-Mountains, Huongulf, German New-Guinea, so that it may be stated that this species, as so many other New-Guinea-species, has a very large area of distribution.